CLAIMS

1. A seal structure of a fuel channel, including an annular seal member which effects sealing in order that high-pressure fuel within a pressure-introducing chamber may not escape onto a low-pressure side through a gap that is defined between an injector housing and a valve body having a valve piston slidably inserted therein, and which is disposed in the pressure-introducing chamber, characterized in that a backup ring having a rigidity is arranged between the gap and the seal member, and that a recess into which the seal member can enter by its elasticity is provided within the pressure-introducing chamber.

2. A seal structure of a fuel channel as claimed in claim 1, wherein said recess is an annular groove which is formed in the valve body.

3. A seal structure of a fuel channel as claimed in claim 2, wherein said annular groove extends along a circumferential direction of the pressure introducing chamber.

4. A seal structure of a fuel channel as claimed in claim 1, wherein said backup ring is arranged so as to lie at a corner between a bottom surface of the pressure introducing chamber and an inner sidewall surface of the pressure introducing chamber.

5. A seal structure of a fuel channel as claimed in claim

1, wherein said backup ring is arranged so as to cover the gap on a bottom surface of the pressure introducing chamber.

6. A seal structure of a fuel channel as claimed in claim 1, wherein said backup ring is a member including a seat portion on which the seal member is seated, and an inner-peripheral wall body portion which is unitarily erected at an inner-peripheral end edge of said seat portion.

7. A fuel injection valve including an annular seal member which effects sealing in order that high-pressure fuel within a pressure-introducing chamber may not escape onto a low-pressure side through a gap that is defined between an injector housing and a valve body having a valve piston slidably inserted therein, and which is disposed in the pressure-introducing chamber, characterized in that a backup ring having a rigidity is arranged between the gap and the seal member, and that a recess into which the seal member can enter by its elasticity is provided within the pressure-introducing chamber.

8. A seal structure of a fuel channel as claimed in claim 7, wherein said recess is an annular groove which is formed in the valve body.

9. A seal structure of a fuel channel as claimed in claim 8, wherein said annular groove extends along a circumferential direction of the pressure introducing chamber.

10. A seal structure of a fuel channel as claimed in

claim 7, wherein said backup ring is arranged so as to lie at a corner between a bottom surface of the pressure introducing chamber and an inner sidewall surface of the pressure introducing chamber.

11. A seal structure of a fuel channel as claimed in claim 7, wherein said backup ring is arranged so as to cover the gap on a bottom surface of the pressure introducing chamber.

12. A seal structure of a fuel channel as claimed in claim 7, wherein said backup ring is a member including a seat portion on which the seal member is seated, and an inner-peripheral wall body portion which is unitarily erected at an inner-peripheral end edge of said seat portion.